

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015963**Date Inspected:** 31-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted in Summary**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder**Summary of Items Observed:**

This Quality Assurance Inspector (QAI), was present at the Self Anchored Suspension (SAS) job site. The following items were observed; see individual item numbers in the body of this report for further details.

Field Splice 1W-2W

1. Bottom Plate D, repair welding in process.

Field Splice 2W-3W

2. Bottom Plate D, ultrasonic testing of weld in process.

Field Splice 4W-5W

3. Side Plate E1, welding of side 1 in process.

1. OBG Field Splice 1W/2W Weld ID: D1 & D2, Face A

The QAI periodically observed ABF approved welder Jin Pei Wang, ID-7299 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position of repair excavations at Ultrasonic Testing (UT) reject areas number 1, 3 and 3 from the A face. AB/F personnel performed the excavating by grinding at locations number 1, 2, 3, 12 and 13. AB/F QC Inspector Tom Pasqualone was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The QAI periodically observed QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the repair excavations prior to Mr. Wang performing welding at the

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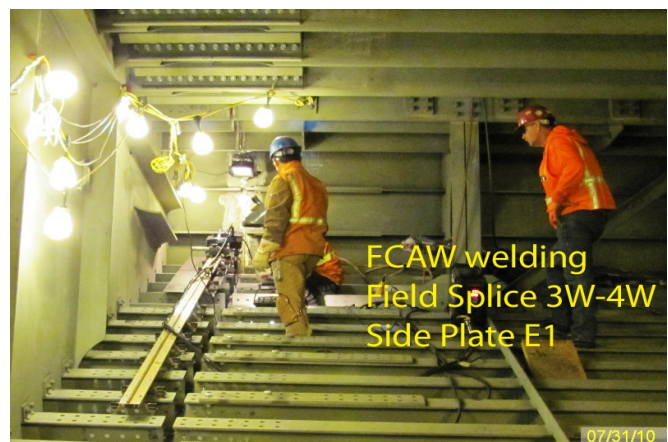
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repair locations. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. Work was not completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.

The QAI periodically observed ABF approved welder James Zhen, ID-6001 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position of repair excavations at Ultrasonic Testing (UT) reject areas number 5 and 7 from the B face. AB/F personnel performed the excavating by grinding. AB/F QC Inspector Jesse Cayabyab was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The QAI periodically observed QC Inspector Jesse Cayabyab performing Magnetic Particle Testing (MT) of the repair excavations prior to Mr. Zhen performing welding at the repair locations. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. Work was not completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.

2, The QA inspector observed the NDT technician Jesse Cayabyab perform ultrasonic testing of the complete joint penetration (CJP) groove weld Field Splice 2W-3W Bottom Plate D from face B. The weld was scanned utilizing a GE USM-35. The testing was performed in accordance with the approved procedure SE-UT-D1.5-CT-100 Rev. 4 and accepted in accordance with AWS D1.5-2002 in the longitudinal and transverse direction. Work was not completed at this location during the QA Inspectors shift, 14 rejectable indications had been identified and the work appeared to be in general compliance with contract documents.

3. The QAI observed the automated Flux Cored Arc Welding (FCAW-G) process of the of the complete joint penetration (CJP) groove weld side plate field splice 2W/3W-C1. The welding was performed from the interior face by the welding operator Song Tao Huang ID-3794 and Jin Quan Huang, ID-9340 utilizing the Welding Procedure Specification (WPS) ABF-WPS-D15-3042B-1 Rev. 0 in the vertical up (3G) welding position. The welding was observed by Quality Control (QC) Inspector John Pagliero. The minimum preheat temperature of 60 degrees Celsius and maximum interpass temperature of 230 degrees Celsius was verified utilizing Tempilstik temperature indicators. The FCAW-G fill pass average amperage of 237 DC, voltage of 24.2 DC at the welding lead and average travel speed of 245 millimeters per minute were verified to be within the WPS parameter ranges of 214 to 267 DC amps, 20.9 to 24.4 DC volts and travel speed of 188 to 455 millimeters per minute by the QA inspector. Work was not completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.



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Summary of Conversations:

General conversations with QC personnel regarding welding locations and schedule.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi, (916)813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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